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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/554,027	10/21/2005	Mikael Nordenfelt	69521-81893	7935
30593	7590	01/11/2008		
HARNESS, DICKEY & PIERCE, P.L.C. P.O. BOX 8910 RESTON, VA 20195			EXAMINER LUU, THANH X	
			ART UNIT 2878	PAPER NUMBER
			MAIL DATE 01/11/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<p align="center">Office Action Summary</p>	<p>Application No.</p> <p align="center">10/554,027</p>	<p>Applicant(s)</p> <p align="center">NORDENFELT ET AL.</p>	
	<p>Examiner</p> <p align="center">Thanh X. Luu</p>	<p>Art Unit</p> <p align="center">2878</p>	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 October 2007 and 15 November 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8, 11-18 and 21-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 21-27 is/are allowed.
- 6) ☒ Claim(s) 1-8 and 11-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| <p>1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)</p> <p>2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</p> <p>3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
 Paper No(s)/Mail Date <u>10/21/2005</u></p> | <p>4) <input type="checkbox"/> Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____</p> <p>5) <input type="checkbox"/> Notice of Informal Patent Application</p> <p>6) <input type="checkbox"/> Other: _____</p> |
|---|---|

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 15, 2007 has been entered.

Claims 1-8, 11-18 and 21-27 are currently pending.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-8 and 11-18 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claim recites a machine having process steps. It is unclear which statutory class Applicant intends to encompass. Correction and clarification is required.

To further prosecution and for examination purposes, the Examiner interprets the claim as a machine, giving the process steps no patentable weight. That is, the process steps do not structurally limit the machine.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Regarding claim 11, it is unclear how there can be third and fourth area arrays if there is no second area array. Examiner believes claim 11 should be dependent from claim 7.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-3, 7, 8, 11-13, 16 and 17, as understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Blake (U.S. Patent 3,549,897).

8. Regarding claims 1-3, 7, 8, 11-13, 16 and 17, Blake discloses (see Figs.) an absolute position rotary encoding apparatus comprising: a disk (23) having a first code track and a second code track formed on said disk; a light source (71) for illuminating said code tracks; a first area array sensor (see Fig. 5), comprising a pixel matrix having a plurality of rows, configured to receive the light illuminating said code tracks for

forming an imaged pattern of a portion of said first and second code tracks simultaneously. The apparatus of Blake inherently being operative to function as claimed since the same structure is disclosed.

9. Claims 1-4, 6, 12, 13 and 15, as understood, are rejected under 35 U.S.C. 102(e) as being anticipated by Leviton (U.S. Patent 7,060,968).

10. Regarding claims 1-4, 6, 12, 13 and 15, Leviton discloses (see Figs. 8a-b) an absolute position rotary encoding apparatus comprising: a disk (705) having a first code track and a second code track (see Fig. 8b) formed on said disk; a light source (not shown) for illuminating said code tracks; a first area array sensor (717), comprising a pixel matrix having a plurality of rows, configured to receive the light illuminating said code tracks for forming an imaged pattern of a portion of said first and second code tracks simultaneously. The apparatus of Leviton inherently being operative to function as claimed since the same structure is disclosed.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over either one of Blake or Leviton in view of Lau et al. (U.S. Patent 4,714,339).

13. Regarding claim 18, Blake and Leviton discloses the claimed invention as set forth above. Blake and Leviton inherently has a processor. Blake and Leviton do not

disclose an automatic tracking servo-mechanism. Lau et al. teach (see abstract) an encoder in a device having an automatic tracking servo-mechanism. It would have been obvious to one of ordinary skill in the art at the time the invention was made provide the encoder of Blake or Leviton in the apparatus of Lau et al. having the automatic tracking servo-mechanism to provide more accurate encoding and tracking.

14. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Leviton.

15. Regarding claim 14, Leviton discloses the claimed invention as set forth above. Leviton does not specifically disclose an ILT CCD as claimed. However, ILT CCDs are well known. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use ILT CCDs in the apparatus of Leviton to reduce the cost of the device or to more rapidly image as known.

16. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over either one of Blake or Leviton.

17. Regarding claim 5, Blake and Leviton discloses the claimed invention as set forth above. Blake and Leviton do not specifically disclose using reflection as claimed. However, reflective and transmissive encoders are well known. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use reflection the apparatus of Blake or Leviton obtain a more compact configuration as known.

Allowable Subject Matter

18. Claims 21-27 are allowed over the prior art of record.

19. The following is a statement of reasons for the indication of allowable subject

matter:

a method of calculating absolute position as claimed, more specifically in combination with: reading a first detector line; reading a second detector line and compensating for fluctuations in the code tracks by selecting first and second detector lines such that a period length of the imaged pattern of the code tracks along the detector lines remains constant, is not disclosed or made obvious by the prior art of record.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanh X. Luu whose telephone number is 571-272-2441. The examiner can normally be reached on M-F 6:00AM-3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps can be reached on 571-272-2328. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information

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system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Thanh X Luu/
Primary Examiner
Art Unit 2878

01/2008